

AMENDMENTS TO THE ABSTRACT

Please add the following abstract to the end of the application:

ABSTRACT

A phased array antenna that employs a switched least means squared architecture comprises plurality of receiving elements each having a respective weighting unit associated therewith, a summation unit, a processor, a plurality of sampling device and a switching unit contains a switch arm having a contact at its free end, an ADC and a plurality of switch contacts corresponding to the ends of channels connected to the respective sampling devices. Each of a plurality of receiving elements is sampled by a respective sampling device prior to an incoming signal subjected to complex weighting by respective weighting units. Each of the signals sampled by the sampling device passes along respective channels to the switching unit. Thus, by switching between the contacts it is possible to vary which of the receiving elements is sampled. The processor calculates new complex weighting coefficients to be applied to the incoming signals by the weighting units using the sampled incoming signals in order to minimize a difference between an output from the summation unit y and a training signal d .